

Rigorous Theory of the Refraction of Plane Electro-
Magnetic Waves at a Fully Conducting Circular Plate
and at a Circular Opening in a Fully Conducting
Plane Screen, by ~~Dr. Heinrich~~ J. Meissner,
W. Andrejewski.

GERMAN, ~~DEU~~ Annal Phys, Vol VII, 1950, p 157.

D.S.I.R./10439/CT

Scientific - ~~Electronics~~ *ELECTRICITY*

DEX ONLY

12,163

On Reflection in an Inhomogeneous Medium, by K.
Forsterling, H. O. Wuster,

GERMAN, par, Ann Physik, Vol VIII, No 6, 1950,
pp 129-133.

NASA TT F-8039

Sci
Sep 61

168, 438

Reflection of a Lightwave Bounded on the Side
at the Less Dense Medium at Some Distance From
the Critical Angle of Total Reflection, by
Kurt Artmann.

GOVERNMENT USE ONLY

GERMAN, per, Annalen der Physik, Vol 8, No 6,
1951, pp 285-290. P200262767

RSIC-682

Sci-Phys
Sept 67

341,353

Benoit, H.

CONTRIBUTION TO THE STUDY OF THE KERR EFFECT EXHIBITED BY DILUTE SOLUTIONS OF RIGID MOLECULES. [1961].

Order from AC \$37.50

Trans. of Annales de Physique (France) 1951 [ser. 12] v. 6, p. 561-609.

DESCRIPTORS: *Molecules, Solutions, Refraction, Relaxation time, Molecular rotation, *Electric fields, Optics.

This study furnishes the following results: (1) The birefringence disappeared exponentially with a time of relaxation $1/6 D$ (D being the constant of diffusion of rotation of molecules) independently of the initial conditions. (2) The law of establishment of the field depends on the nature of the couple of orientation and there can (Physics--Molecular, TT, v. 7, no. 1) (over)

61-25899

1. Title: Kerr effect
1. Benoit, H.
- II. Capelo, A. Hollywood, Calif.

Office of Technical Services

TT-65-12337

Field 201

Seeliger, R.; Wichmann, A.
INVESTIGATIONS ON THE POSITIVE COLUMN OF THE
GLOW DISCHARGE IN OXYGEN. I. 15p, 6 refs.
Order from SLA: \$1.60 as TT-65-12337

Trans. of Annalen der Physik (East Germany)
v9(s6) n5 p235-44 1951.

I. Seeliger, R.
II. Wichmann, A.

MR 630

Refraction and Reflection of a (Light-) Wave
Bounded on the Side at the Plane Interface of
Two Media Near the Critical Angle of Total
Reflection, by K. Artmann.

GOVERNMENT USE ONLY

GERMAN, per, Annalen der Physik, Vol 8, No 6,
1951, pp 270-284. P200249867
BSIC-685!

Sci-Phys
Sept 67

341,351

Measurement of Electric Conductivity of CdS Crystals
Bombarded by Electrons of Medium Energy, by H. Penda,
21 pp.

GERMAN, per, Annalen der Physik, Vol IX, Series 6,
1951, pp 413-422.

CIA/FDD/K-754

~~SECRET~~
~~SECRET~~

Scientific - Electronics, conductivity, crystals,
energy

Electrical and Optical Behavior of Copper Sulphides, by L. Kienemann.

GOVERNMENT USE ONLY

GERMAN, per, Ann Physik, Vol 10, No 5, 1952,
pp 129-152.

NASA TT F-12,225

Sci-Phys

Aug 69

390,10

Harry Dia. Bab.

DAAG39-6870943

R-8868-D

7 Nov 67

Innere Feldemission aus lokalisierten Fehlstellen
isolierender Kristalle

By: Walter Franz

From: pp 2-24 Annalen der Physik 6. Folge Band 11, 1952
(21 pp)

German - est for wds:

Please translate and type original copy only. Do not
mutilate document. Reproduce for paste-up.

Specular Systems with Grazing Incidence as a
Image Optics for X-Rays, by H. Wolter, 22 pp.
GERMAN, Annalen der Physik, Vol 10, No 6,
1952, pp 94-114.

ARM/RSIC/Tr-831-68
GOVERNMENT USE ONLY

Sci/Phy
Dec 68

354,954

Contribution to the Study of the Kinetic Theory
of Solids, by A. Herpin.

E. R. C. H.
~~HERPIN~~, *par*, Ann Phys, Vol VII, No 12, 1952,
p 91-139.

S

ASLIB GB43

*See
Jul 56*

68,737

Absolute Measurement of Beta Activation, and its
Application for the Determination of Neutron Den-
sities, by Rene Cohen

FRENCH, Annales de Physique, Vol VII, No. 12, pp
237-237, 1952.

Am. Nuclear Soc.
T-48 FU T-45 FU
AEC-PR-1587

Scientific - Physics

1055

Internal Conversion; Study of Some Excited States
of Heavy Nuclei Through Their Conversion Radiation,
by Jean Teillac, 51 pp. UNCLASSIFIED

Full translation.

FRENCH, per, Ann Phys, Vol VII, No 12, 1952,
pp 396-450.

AEC Tr 2042

Scientific - Nuclear Physics

Jun 53 CTS/DEX

Also Avail @ UCRL Trans 151

3061

Semiconductor Properties of Cuprous Oxide. I.
Method of Preparation With Consideration of
Stability Conditions, by G. Blankenburg, K.
Kassel, 10 pp.

GERMAN, per, Ann Physik, Vol X, 1952, pp 201-210.

ATS-903-GJ

AEC Tr 2420

Assoc Tech Sv, Tr 41890

Sci - Chemistry, Physics 33, 264

Apr 56

Generalized Schwarzschild Systems of Mirrors With
Glancing Reflection as Optical Systems for X-Rays,
by H. Wolter.

GERMAN, per, Annalen der Physik, Vol X, 1952,
pp 286-295.

NASA TT F-8733

Sci-Phys

May 64

U.S. GOVERNMENT ONLY

259,749

Theory of Diffraction by a Cylinder as Affected by
the Surface Wave, by W. Franz, K. Deppermann,
17 pp.

GERMAN, per, Annalen der Physik, Vol X, 1952,
pp 361.

29,476

CIA/FDD/XX-30
IAC INTERNAL USE ONLY

Scientific - Physics

Dec 55 CTS/DEX

Theoretical Discussion of the Influence of
Ferromagnetic Coercive Forces of Spheroidal
Inclusions Which Are Small as Compared With the
Thickness of the Bloch Walls, by E. Schwabe.

GERMAN, per, Annalen der Physik, Vol XI, No 2/3,
1952, pp 99-112.

BISI 2139

Sci - Phys

Sep 61

list 110

168, 1500

Noise Measurements on Thin Lead Sulphide Photo Layers,
by F. Eckart, 5 p.

GERMAN, per, Annalen der Physik, 1952, 6 Folge,
Vol XL, No 2/3, pp 166-168.

SIA 59-17913

Sci
Feb 60
Vol 12, No 10

108,852

1

Boundary Layer Noise in Semiconductors, by W. M.
Buttler, 8 p.

GERMAN, par, ~~Annalen der Physik~~, 1953, 6 Folge, Vol
Vol XI, No 4-7, pp 362-367.

SLA 59-17931

Sci
Mar 60
Vol 2, No 11

109,664

The Boundary Layer Noise of CdS Monocrystals, by
W. M. Duttler, 8 p.

GERMAN, per, Annalen der Physik, 1953, 6 Folge,
Vol. XI, No 4-7, pp 368-376.

SLA 59-17930

Sci
Mar 60
Vol 2, No 11

109665

Contribution to the Interpretation of the
Internal Damping of Solid Bodies, by Thrust
and Compression Viscosity, by Ho. O. Kneser,
K. Voelz, 7 p.

GERMAN, per, Annalen der Physik, 1953, 6 Folge,
Vol XI, No 4/7, pp 377-382.

SLA 59-17370

Sci
Mar 60 Vol 2, No 11

109,638

A Theory Concerning the Diffraction of Electro-
magnetic Waves in a Perfectly Conducting
Circular Disc and Related Problem,
by J. Meixner, 16 pp.

GERMAN, per, Annalen der Physik, Vol VI,
No 12, 1953, pp 227-236. 9204403

Amer Meteorol Soc T-G-176

Sci - Phys
Mar 63

225.287

Boundary Conditions and Transit Time Effects in
Connection With Tube Noise, by R. Wiesner, 47 pp.

GERMAN, per, Ann Physik, Vol VI, No 12, 1953,
pp 361-378.

SLA 57-2495

May 58

63,182

The Intensity Distribution of Spectral
Lines in the Fabry-Perot Interferometer,
by K. Krebs and A. Sauer, 17 p.
GERMAN, per, Annalen der Physik, No 13,
1953, pp 359-368. 9700107
AFCL T-4-245

Sci-Phys
Apr 66

297,747

The Graphite Arc as Spectrophotometric Standard
of Radiation Density in the Range From 0.25 to
1.8 , by J. Euler, 28 pp.

GERMAN, per, Annalen der Physik, Vol. XI, Nr. 6,
1953, pp. 203-224.

Navy Tr 3189/EUL 894

Sci - Phys

204.640

Jul 62

On the Theory of Solutions of Alkali Metals in
Liquid Ammonia, by Werner Bingel, 102 pp.

GERMAN, per, Ann Physik, Vol XII, 1953, pp 57-83.

AEC Tr-4262

Sci - Phys
Jun 61

156 071

The Theory of Probes in Electronegative Gases,
by Johannes Wilhelm, 8 pp.

GERMAN, per, Annalen der Physik, Vol XII,
No 7/8, 1953, pp 401-409.

A.E.R.E. Harwell Tr 461

Sci. - ~~Fuels, Electricity~~, Ionization of gases

Physics

31,960

Theory of Solutions of Alkali Metals in Liquid
Ammonia: Errata, by W. Bingel,

GERMAN, per, Ann Physik, Vol XII, 1953, p 424.

*AEC

Sci - Phys

Aug 60

Monoenergetic Ion Beams From the Glow-Discharge
of the Hollow Cathode, by M. Pahl, W. Kleinmann,
25 pp.

GERMAN, per, Ann Physik, Vol XIII, No 6, 1953,
ppk 166-177.

AEC UCRL-Trans-587(L)

Sci - Phys
13 Mar 61

141,290

Cluster Theory Investigation of Electron Bands in
Diamond Lattices, by W. Doring, V. Zehler.

GERMAN, per, Annalen der Physik, Vol XIII, No ~~6~~ 6,
1953, pp 215-228.

*AFCL Res Lib

Enormous energy in the future

Sci - Phys

24 May 62

~~*Res in Center~~

The Calculation of Energy Bands in the Diamond
Crystal, by V. Zehler, 37 pp.

GERMAN, per, Annalen der Physik, Vol XIII, No 6,
1953, pp 229-232. 9684968

Esigmel Coll Res Lang Ctr
E-T-R-G-62-30

Sci - Phys
Aug 63

342,110

The Effect of Oxygen on the Conductivity of C₆₀
Single Crystals, by W. Muschheid, 16 pp.

GERMAN, Per, Ann Physik, Vol XIII, 1953, pp
305-321

Assoc Tech Serv-221103

Sci
Aug 58

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Proof of Fraps in CdS Single Crystals, by W.
Muscheid, 5 pp.

GERMAN, per, Ann Physik, Vol XIII, 1953,
pp 322-326

Assoc Tech Serv-23HLOG

Sci
Aug 58

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The Intensity Distribution of Spectral Lines in
the Fabry-Perot Interferometer, by K. Krebs and
A. Sauer,

GERMAN, per, Annalen der Physik, Ser 6, Vol XIII,
No 6/8, 1953, pp 359-368. 100007066

AFORI T-G-245

Sci-Phys
Sept 66

309,080

Representation of Gas Currents By Means of
Electron Beams, by B. Schumacher, 31 pp. UNCLASSI-
FIED.

GERMAN, per, Ann Physik, Vol XIII, 1953,
pp 404-420.

19,540

AEC-Tr-1947

Scientific - Physics

Nov 54 CTS/DEX

Two-Ray Interference -- The Principles of
Interference and the Position of Interference
Phenomena, by G. Schulz. UNCLASSIFIED

GERMANY, per, Annal der Phys, Vol XLIX, 1953,
pp 421-428.

DSIR/31876/CT

Sci - Phys
Oct 58

74, 437

CEA-tr-A-451 Uncl.

SOURCES D'IONS POUR DES RECHERCHES DE PHYSIQUE NUCLEAIRE. (Ion Sources for Research in Nuclear Physics). O. Reifenschweiler. Translated into French from Ann. Physik (6), 14: 33-?(1954). 37p.

Particle Physics MC-34

C-34 NP NSA Dep.(mc)

Production of X-ray Rays From the Plasma of
Gas Discharges, by O. Reifenschweiler,
45 pp.

GERMAN, par, Annalen der Physik,
Vol XIV, No 6, 1954, pp 33-53.

SLA 60-18050

Sci
Vol IV, No 9
Mar 62

187, 222

Theory of Diffraction by a Sphere on Consideration
of the Creeping Wave¹, by K. Deppermann, W. Franz,
17 pp.

GERMAN, per, Annalen der Physik, Vol XIV, 1954.

28, 469

CIA/FDD/XX-31
IAC INTERNAL USE ONLY

Scientific - Physics

Deu 55 CTS/DEX

Comparison of Graphite Arcs and
Ultraviolet Standards, by J. Euler.
GERMAN, per, Ann Physik, Vol XIV, 1954,
pp 145-173.
NASA TT F-10,265

U. S. GOVERNMENT USE ONLY
Sci-Phys
Dec 66

316,429

Interference Fringes of Equal Depth and
Measurement of Length With Light Waves, by
G. Schulz. UNCLASSIFIED

GERMAN, Ger, Ann Phys, Vol XIV, No 3/5,
1954, pp 177-187.

DSIR/32112/CT

Sci - Phys
Oct 58

74, 436

63-10912

I. Eckart, F.

Eckart, F.
CONDUCTIVITY MEASUREMENTS ON SELENIUM.
[1963] 23p. 35 refs.
Order from SLA \$2.60

63-10917

Partial trans. (p. 233-241, 248-252) of Annalen der Physik (East Germany) 1954 [ser. 6] v. 14 [no. 6]
p. 233-252

DESCRIPTORS: *Selenium, *Electrical conductance, Temperature, Semiconductors, Impurities, Bromine, Solids, Liquids, Vacuum apparatus, Crystal structure.

The dependence of conductivity on temperature of solid and liquid selenium is essentially determined by the purity of the selenium and is substantially influenced by the introduction of oxygen in the case of highly purified selenium. An E-value of 2.2-2.9 ev. was measured from a very reproducible $\log \sigma \sim 1/T$ straight line (Physics--Solid State, TT, v. 10, no. 2) (over)

Office of Technical Services

Electric "Microdischarges" in the Dynamical
Vacuum, by Robert Arnal, 49 pp.

GERMAN, per, Ann Phys, Vol X, No 12, 1955,
pp 830-873.

AEC Tr 2837

Sci - Physics

45, 113

Mar 57/CTS

STUDY OF ELECTRICAL DISCHARGE BY INDUCTION IN RARE
GASES, BY F. CABANNES.

FRENCH, PER, ANNALES DE PHYSIQUE, VOL X, 1955,
PP 1026-1078.

TIL T 5273

SCI - PHYSICS

NOV 62

216,705

Some Semiconductor Characteristics of Capronic
Oxide, by G. Fritzsche.

GEFMAN, p. r., Ann Physik, Vol. XV, No 3, 4, 1955
pp 178-181.

ASLIB GER25

Sci
Aug 58

68, 256

Ionic Conduction and Disorder of Silver Chloride
With Additions, by Ines Ebert, J. Teltow,
24 pp.

GREEN, per, Annalen Physik, Vol. XV, No 6, 1955,
pp 268-272.

AEC Tr 3554

Sci - Phys
Mar 59

82,905

A Theory of the Instruments for the Observation
of Nuclear Magnetic Resonances, by Harry Pfeifer,
15 pp.

GERMAN, per, Ann Physik, Vol XV, 6th Series,
1955, pp 311-342.

Assoc Tech Sv Tr 70H9G
(CIA FDD X-2361)

Sci - Physics
Apr 1957 CTS/dex

46,339

CEA-tr-A-996 Uncl.

UNE THEORIE DE L'APPAREILLAGE D'OBSERVATION DE
RESONANCES MAGNETIQUES NUCLEAIRES. (A Theory
of Equipment for Observation of Nuclear Mag-
netic Resonances). H. Pfeifer. Translated
into French by P. Monnard from Ann. Physik (4),
15: 311-24(1955). 30p. 9092384

Instrumentation; Physics; Translations MC-11

C-34 NP NSA Dep.(mc); \$2.1 (fs), \$1.1 (mf)
JCL

N-4

Modification of the Structure of Evaporated
Ge-Deposits in the Electron Microscope, by
E. W. Fisher and H. Richter.

GERMAN, per, Ann Phys, Vol XVI, No 5-8, 1955,
pp 193-209.

ASLIB-QB4

Sci

Aug 58

72,304

Measurements Concerning the Third-order Homogeneous
Thermoelectric Effect (1st Benedicks Effect). by
G. Kocher.

GERMAN, per, Annalen der Physik, Vol XVI, No 5/8,
1955, pp 210-226.

CSIRO Tr 3978

Oct. 62

The Influence of the Glass Substances, by D.A.G.
Bruggeman.

CHERMAN, per, Ann Physik, Vol XXVIII, No 4, 1955,
pp 131-136.

AMS 326-21

Sci
Nov 59

100,424

A Modification of the Wierzsacker Correction
in the Statistical Atom, by P. Gombas.
GERMAN, per, Annalen der Physik, Vol 18,
No 1-2, 1956, pp 1-16.
*NASA TT F-11,296

GOVERNMENT USE ONLY
Sci-Phys
Jan 68

A New Method of Measuring the Complex
Dielectric Constant in Centimeter Waves.
Application to the Study of the
Phenomenon of the Adsorption of Water,
by J. LeBot.

FRENCH, per, Annales de Physique,
Vol 1, 1956, pp 463-492.
NTC 72-10159-20C

Apr 72

Mechanical Distortions Due to Electric Discharges,
by O. Bethge, 31 pp.

GERMAN, per, Ann Physik, Jun 1956.

SLA Tr 57-1415

Sci - Electricity

Oct 57

54, 510

Precision of bubble-pressure method for the determination of the surface tension of liquids, by K.R. Cury.
GERMAN, per, Annalen der Physik, Vol 17, 1956, pp 57-77
NASA TT F 13, 937 29 pp

sept 71

On the Photo-Electric Properties of Cadmium
Sulphide, by G. Millerick,

GERMAN, per, Ann Phys, ⁷¹²Vol I, 1956, pp 623-670

MISDOC-T1889

Sci
Apr 59

84, 440

Semiconductor Properties of ZnS_2 , by C. Fritzsche,
11 pp.

GERMAN, publ. Annalen der Physik, 6th Series,
Vol XVII, No 2/3, 1956, pp 94-101.

Dept of Commerce
Patent Office
Sci Lib (gift)

Sci - Electronics
Jul 59

92,137

Partition Function and Effective Ionization
Potential of an Atom in the Interior of a Plasma,
by G. Ecker, W. Weizel, 19 pp.

GERMAN, 8-times-year, Ann Physik, Vol XVII,
1956, pp 126-140.

ABC Tr 2841

Sci - Physics
Apr 57 CES/dex

46, 053

A Modification of the Weissacker Correction in
the Statistical Atom, by P. Gombas,
GHEHAN, per, Annalen der Physik, Vol 18, No 1-2,
1956, pp 1-16.

*NASA TR-P 11,296

Sci-Mac Science
Oct 67

The Axial Temperature Distribution at the Interior of the Anode of a Carbon Arc and the Thermal Conductivity of Graphite at High Temperatures, by J. Euler.

GERMAN, per, Ann Physik, Vol XVIII, 1956, pp 345-369.

NASA TT F-10,266

U. S. GOVERNMENT USE ONLY

Sc -Phys

Dec 66

316,426

Construction of an Accelerator Tube for Ions at
700 KV. Development of Ion Sources With Oscil-
lating Electrons, by J. Sommeria-Klein, 73 pp.

GERMAN, per, Ann Phys, Vol I, 1956, pp 344-394.

AEC UCRL-Trans-592(L)

Sci - Phys
19 Jan 61

137,339

Investigations On the Internal Demagnetization
Factor by G. Vogler.

GERMAN, per, Annalen Der Physik Ser. 6, Vol **XIX**, 1956,
pp 229-232.

CSIRO

Oct. 62

Diffusion of Radioactive Ions in Crystals,
by Marius Chemla, 48 pp.
FRENCH, per, Annales de Physique, Vol I, No 13,
1956, pp 959-999. 9226033
AEC-UCRL-Tr-1038 (L)

Sci-Phys
Dec 64

270,153

A New Method of Measuring the Complex Dielectric
Constant in Centimeter Waves, by Jean Lehot

30 pp. *110,499*

per
FRENCH, *per*, Annales de Physique, *per* June 1956, France,
pp 463-492.

ACSI H-6052

Sci - Phys

Mar 60

110,499

Entrainment of Impurities During Crystallization,
by Jules Pauly, 34 pp.

FRENCH, per, Ann Phys. Vol I, 1956, pp 1003-1039.

AEC Tr 2871

Bcl - Chem

May 57

47, 415

Influence of the Initial Copper Material on the
Characteristics of Copper Oxide Rectifiers, b.
P. Eckart, C. Fritzsche, 12 pp.

GERMAN, per, Ann Physik Ser, Vol VI, No 19, 1956,
pp 19-30.

Assoc Tech Serv 65J160

Jul 58

69, 959

Huguenin, Eugene-Louis.

THE PHOTOEMISSION ELECTRON MICROSCOPE.

Doctoral thesis Paris U., 19 June 56. [1960] 50p.

81 refs.

Order from RIS \$45.00

RIS E-635

Trans. of Annales de Physique (France) 1957 [ser. 13, v. 2] p. 214-266.

151883

(Physics--Optics, TT, v. 5, no. 9)

61-12041

1. Electron microscopes--
Operation
2. Photoemission--Analysis
 - I. Huguenin, E.-L.
 - II. RIS E-635
- III. Research Information
Service, New York
- IV. Paris U. (France)

Office of Technical Services

Diffusion of Sb in Ag, by W. Weller 3pp
GERMAN, per, Ann. Physik, 20, 1957
pp. 42-44.
*CFSTI TT 70-58118
AVAILABLE FROM NBS ONLY

Sci/chem
Apr 70

REC
SCL-T-710234 Uncl.

BACKSCATTER OF ELECTRONS IN THE 10 TO 100 keV
ENERGY REGION. Kanter, Helmut. Translated by
B. Thayne (Sandia Labs., Livermore, Calif.), from Ann.
Phys. (Leipzig); (6), 20: 144-66(1957). 34p.

physics; translations

ND-34 P RC

Unlimited

Backscattering of Electrons in the Energy Range
From 10-100 keV, by Helmut Kanter.
GERMAN, per, Annalen der Physik, Vol 20, 1957,
pp 144-166.
*AFCRL

Sci/Phys
Feb 70

Effect of Convection on an Electric Arc,
by H. Rother.

GERMAN, per, Ann Phys, Vol XX, 1957,
pp 230-237.

NASA TT F-10,756

GOVERNMENT USE ONLY

Sci-Phys

Mar 67

320,839

Breakdown Voltage and Ignition Lag in Nitrogen at
Higher Pressures, by G. List, *et al.*

QUINTAL, *et al.*, *Annalen der Physik*, Vol XIX, 1957,
pp 283-291.

NR00 EB-828

Sci - Electronics
Jan 61

136430

62-18537

I. Harrand, M.

Harrand, Monique.
RAMAN SPECTRA OF VITREOUS SUBSTANCES AT
HIGH TEMPERATURE (Spectres Raman des Corps
Vitreux à Haute Température). [1962] [25]p. (foreign
text included) 11 refs.
Order from SLA \$2.60

62-18537

Trans. of Ann[ales de] Phys[ique] (France) 1957,
ser. 13, v. 2, p. 309-317.

DESCRIPTORS: Ceramic materials, *Glass, *Silicon
compounds, *Dioxides, *Raman spectroscopy, High
temperature research.

Intensity measurements done on Raman spectra of
vitreous silica at 26° C and at 775° C show an increase
of the intensity with increase of the temperature just as
this is expected according to Placzek's theory. - Both
in the vitreous and liquid states the Raman spectrum of
(Materials--Ceramics, TT, v. 9, no. 8) (over)

Office of Technical Services

Schwartz, Wolfgang.
ELECTRON-MICROSCOPIC INVESTIGATION OF MAG-
NETIC POWDER SAMPLES. [1962] 10p.
Order from K-H \$12.50 K-H 6738

Trans. of Annalen der Physik (East Germany) 1957
[ser. 6] v. 19, p. 322-328.

DESCRIPTORS: *Electron microscopy, *Magnetic
materials, *Powders, Powder metallurgy.

(Physics--Magnetism, IT, v. 8, no. 11)

62-22732

- I. Schwartz, W.
- II. K-H-6738
- III. Kresge-Hooker Science
Library Associates,
Detroit, Mich.

Office of Technical Services

On the Problem of Approaching an Ideal Isotope-Separation Cascade by Means of a Sepwise Arranged Cascade in the Case Where Material Losses Are Taken Into Account, by Heinz Barwich, 14 pp.

GERMAN, per, Annalen Der Physik, Vol XX, No 1-6,
15 Jul 1957

REC/IGRL-7/60-7
US JPRS/DC-L-8

Sci - Chem

58,881

Feb 58

Schmurzer, Ernest.

**MINKOWSKI ELECTRODYNAMICS AS RESULT OF
AN INVESTIGATION OF FIELD THEORY. [1960]**

7p, 10 refs.

Order from OTS or SLA \$1.10

60-17368

Trans. of Annalen der Physik (East Germany) 1957,
ser. 6, v. 20, p. 349-354.

DESCRIPTORS: *Electromagnetic fields, Electricity,
Dynamics, *Tensor analysis, Energy, Mass energy
relation, Density, Spheres, Electric fields,
Transformations (Mathematics), Relativity theory.

A general investigation is made of the coupling of the
electromagnetic and matter fields as an analog of
electrodynamics in media. It is found that only a
separation of the two fields in accordance with
Minkowski's electrodynamics is meaningful, a mini-
(Physics--Theoretical, TT, v. 8, no. 2) (over)

60-17368

I. Schmurzer, E.

5-18-62

Office of Technical Services

Pachner, Jaroslav.
ON THE COMPATIBILITY OF THE FIELD EQUATIONS, CONSERVATION LAWS, AND EQUATIONS OF MOTION IN THE UNITARY FIELD THEORY [1960] 14p. 38 refs.
Order from OTS or SLA \$1.60 60-17369

Trans. of Annalen der Physik (East Germany)
1957, ser. 6, v. 20, p. 368-380.

DESCRIPTORS: *Gravity, *Electricity, *Electromagnetic fields, Mass energy relation, Motion, Equations, *Relativity theory, Tensor analysis, Partial differential equations, Differential equations, Differential geometry, Particles.

The problem of choosing the Hamiltonian for the unitary field theory of gravitation and electricity is discussed. Then the compatibility of the field equations is demonstrated. There are 18 equations for 16 (Physics--Theoretical. TT, v. 8, no. 2) (over)

60-17369

1. Pachner, J.

5-18-62

Office of Technical Services

THE TEMPERATURE DEPENDENCE OF THE
PHOTOEMISSION OF THE C-S PHOTOCATHODE
IN THE TEMPERATURE REGION OF -170° UP
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transfer process in the kinetics of the positive ions
in specific gases and, in particular, in the theory of
the cathode fall is stressed. It is also demonstrated,
under conditions of anomalous discharges at any
rate, that the majority of excitations and ionizations
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